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Significance & Background: Patient falls are a high-risk, high-volume, high-cost challenge for healthcare facilities. Reported rates of falls range from 1.3 to 8.9 per 1000 bed-days. Falls are often caused by a multitude of factors. In 2010, the cost of falls to the healthcare system nationwide was estimated to be $28.2 billion and is expected to reach more than $54 billion by 2020. Lack of CMS reimbursement for these costly events is a major motivating factor to ensure patients receive evidence-based care to prevent inpatient falls. The goal of the initiative aimed to achieve not only a 50% reduction in the number of falls, but more importantly, a zero zone for falls with injuries.

Purpose/Description: In January 2014, a Lean Rapid Performance Improvement (RPI) Team was formed with the overall purpose to redesign the fall prevention program at three hospitals within a large health system. Led by CNSs, the interprofessional team strategized to develop an evidence-based, Multi-System Fall Prevention Model which outlines a bundle of specific interventions aimed at preventing falls and physical injury from falls through patient/family education, identification of at-risk patients, and by promoting patient comfort, safety and hazard-reduction. Team Safety huddles are held after each fall for immediate communication and action.

Evaluation/Outcomes: Significant and sustained reduction in patient falls and injury is achieved by adopting an organizational awareness of fall safety. A culture of patient-centered safe care was adopted through an educational program targeted at all levels of staff. Using the Collaborative Alliance for Nursing Outcomes (CALNOC) as our metrics benchmark, fall rates in CY12 (2.9/1000 patient days) and CY13 (2.9/1000 patient days) served as a baseline. From March-December CY14, the “zero zone” for injuries was attained. Fall rates during this same time period varied depending on unit type. CALNOC mean 3rdQ14 Total Facility Unassisted Falls = 1.55 / LBM = 1.84 – slightly above CALNOC mean (2.4/1000 patient days).

Further root cause analysis and staff education was done. From December 2014-February 2015, we have seen a 50% reduction in overall # falls and are confident that this trend will be sustained.

IMPROVING GLYCEMIC CONTROL FOR POST-OPERATIVE CARDIAC SURGERY PATIENTS: A NURSE PRACTITIONER LED PROJECT

Linda Kerr DNP, RN, FNP-BC, CDE; Peggy Kalowes, PhD, RN, CNS, FAHA; Barbara Easterbrook, MSN, RN ANP; Darice Hawkins, MSN, CNS, CCRN Kim West, MSN, RN, ACNP

**Background:** Diabetes is the fourth leading comorbid condition among hospital discharges in the United States. With or without diabetes, as many as 30 to 40 percent of all hospitalized patients develop hyperglycemia and experience longer hospital stays and poor clinical outcomes. The incidence of diabetes in cardiac surgery patients continues to rise and is estimated at nearly 40 percent. Glycemic control in the cardiac surgery patient is best achieved in the preoperative period utilizing diabetes experts who are knowledgeable in glycemic management. Although nurse practitioners (NPs) have historically focused their practice in the primary care setting, many NPs are now moving toward inpatient care roles to meet quality directives such as provision of comprehensive diabetes and glycemic management.

**Aim:** This project examines the innovative use of an NP led team to standardize insulin and nutritional therapies for cardiac surgery patients. The goal was to improve glycemic control and monitor staff satisfaction with the clinical change process.

**Method:** The study was a single center, descriptive, comparative analysis of an NP led quality improvement project.

**Results:** Study results demonstrated a statistically significant increase in achievement of the SCIP-inf-4 benchmark following NP led clinical process changes (p<.001). At the same time, there was a decrease in hypoglycemic events following the NP led intervention. The results were not statistically significant (p=.642) however, there may be clinical significance due to the association between hypoglycemia and increased morbidity for cardiac surgery patients.

**Outcome/Results:** Outcome data for nursing perception of the clinical change process indicated a need for the NP team to expand the number of nursing education sessions.
NP LED PROJECT TO ACHIEVE EUGLYCEMIA IN CARDIAC SURGERY PATIENTS: EFFECT OF A1C AND BMI

Linda Kerr DNP, RN, FNP-BC, CDE; Peggy Kalowes, PhD, RN, CNS, FAHA; Barbara Easterbrook, MSN, RN ANP; Darice Hawkins, MSN, CNS, CCRN; Kim West, MSN, RN, ACNP

**Background:** Single-center descriptive, comparative analysis of a nurse practitioner (NP) led quality improvement/best practice project: Hyperglycemia during the first 48 hours following cardiac surgery has been found to be independently associated in the incidence of Deep Sternal Wound Infection. For cardiac surgery patients, hyperglycemia is an independent predictor of mortality, with or without diabetes. Insulin therapy is indicated for the treatment of hyperglycemia. The complexity of insulin therapy, and strategies surrounding planned staff education opportunities, requires clinical providers that are knowledgeable in glycemic management. Implementation of clinical process changes by a NP led team was expected to reduce early postoperative hyperglycemia for cardiac surgery patients.

**Aim:** The primary aim of the project was to determine the effect of NP led insulin management and glycemic-related clinical process changes on hyperglycemia in post-operative cardiac surgery patients.

**Methods:** Glycemic improvement was measured by achievement of the 2014 SCIP-inf-4 measure. Data affecting glycemic management included patient A1c and BMI results.

**Results:** Post-operative diabetes and insulin resistance, combined with glucose intolerance and obesity (BMI greater than 29 kg/m²), contributed to challenges with achievement of the SCIP-inf-4 measure. In the pre-intervention group, NP individualization of insulin therapy occurred on post-operative day two and was focused on patients with an A1c greater than 5.9 percent and/or a BMI of greater than or equal to 30 kg/m². In the post-intervention group the NP team expanded individualization of glycemic management to all patients undergoing a cardiac surgical procedure.

**Evaluation/Outcome:** Improvement of the SCIP-inf-4 measure from the pre-intervention group (80.9 percent) to the post-intervention group (97.6 percent) was statistically significant, \( p < .001 \). Statistically significant improvement in glycemic control included patients with A1cs of 5.7 to 6.5 percent (\( p = .010 \)), BMIs of 25 to 30 kg/m² (\( p = .006 \)), and patients with a combination of A1c greater than 5.9 percent and BMI less than 30 kg/m² (\( p = .001 \)).
“4TH FLOOR AVASYS TELESITTER INITIATIVE”

Paulina Chhay, MSN, RN, PHN

**Background:** The Avasys Telesitter (AT) surveillance system is used as an adjunct to LBM’s Fall Prevention Plan. The AT initiative was introduced on July 1st, 2015 on 4th Floor to ensure patient safety as an additional fall prevention strategy in the plan of care for patients at risk for falls, cognitive impairment, impaired mobility, susceptible to harm and injury to self.

**Aim:** To decrease patient falls on Ortho/Neuro/Wound Care Unit and to lower sitter usage by 50% the first year after implementation.

**Methods:** The 4th Floor acquired 10 video monitoring units through the capital budget system. The AT monitoring station is set-up on 4-West. Workflow processes, documentation, signage, initiation/discontinuation criteria and patient/family education were developed and policy procedure was drafted. A PCA selection criteria for training skill set was made with 3 hours of PCA education, it included classroom and hands on learning of surveillance system software and role of video monitor technician (VMT). Ongoing in-service for RN’s and other PCA’s were also conducted. Maintenance of the system including patient’s behaviors are documented by VMT and collected on a weekly basis. Leaders of the Initiative are evaluating number of falls both with and without injuries along with sitter hours.

**Outcome/Results:** Over 515 patients have been video monitored the past 6 months. The use of this technology, combined with staff buy-in, has positively affected staff ability to care for all patients in their assignment. Anecdotally, there is increased family satisfaction knowing their loved ones are being monitored closely. We have been able to decrease sitter hours for the past 6 months by 22%. Over the 6 month period patient falls decreased by 24%.

**Implications for Practice:** Falls continue to plague us. Falls are tricky and there is not one solution to fixing the issue. Video surveillance is another intervention used in our multi-factorial Fall Plan. Success is dependent on staff vigilance and initiating ALL fall interventions, not only the use of this new technology. Educating staff who float to 4th floor on the use of AT and our Fall Prevention Culture is imperative.
"VISUAL ASSESSMENT OF BRAIN MAGNETIC RESONANCE IMAGING DETECTS INJURY TO REGIONS THAT CONTROL MEMORY AND EXECUTIVE FUNCTION IN PATIENTS WITH HEART FAILURE."

Alan Pan; R Kumar; PM Macey; Greg Fonarow; RM Harper; Mary Woo

Background: Heart failure (HF) patients exhibit depression and executive function impairments that contribute to HF mortality. Using specialized magnetic resonance imaging (MRI) analysis procedures, brain changes appear in areas regulating these functions (mammillary bodies, hippocampi, and frontal cortex). However, specialized MRI procedures are not part of standard clinical assessment for HF (which is usually a visual evaluation), and it is unclear whether visual MRI examination can detect changes in these structures.

Methods and Results: Using brain MRI, we visually examined the mammillary bodies and frontal cortex for global and hippocampi for global and regional tissue changes in 17 HF and 50 control subjects. Significantly global changes emerged in the right mammillary body (HF 1.18 ± 1.13 vs control 0.52 ± 0.74; P = .024), right hippocampus (HF 1.53 ± 0.94 vs control 0.80 ± 0.86; P = .005), and left frontal cortex (HF 1.76 ± 1.03 vs control 1.24 ± 0.77; P = .034). Comparison of the visual method with specialized MRI techniques corroborates right hippocampal and left frontal cortical, but not mammillary body, tissue changes.

Conclusions: Visual examination of brain MRI can detect damage in HF in areas regulating depression and executive function, including the right hippocampus and left frontal cortex. Visual MRI assessment in HF may facilitate evaluation of injury to these structures and the assessment of the impact of potential treatments for this damage.
IMPLEMENTATION OF A STANDARDIZED FEEDING GUIDELINE IN THE NICU SETTING

Ching Ching Tay, MS, CNS, RNC-NIC; Shannon Cunningham, RD, CNSC, CLEC; Vicki Liu, MS, RD, CSP; Jenny Kim, MS, RD; Marina Vigil, RD; Arwin Valencia, MD

Objective: Reduce extra-uterine growth retardation (EUGR) in very-low-birth-weight (VLBW) infants through an evidence-based feeding advancement guideline.

Background: Preventing EUGR in VLBW infants is a challenge. Studies have shown that a standardized feeding protocol offers a number of benefits including improving nutritional intake and growth, reducing time to reach full-enteral feeds, less TPN days, risk reduction in central-line-associated bloodstream infection (CLABSI) and necrotizing enterocolitis (NEC), as well as an overall reduction in the length of hospitalization.

Method: Using the Institute of Health Improvement's (IHI) Model of Improvement, small iterative tests (plan-do-study-act) cycles with an evidence-based feeding advancement guideline were tried from 2012 to 2014. Growth at discharge was monitored as an outcome measure, while compliance with guideline, time of initiation and days to full enteral feeds were followed as process measures. NEC rate was observed as a balancing measure.

Results: EUGR at discharge decreased by approximately 15% following introduction of the guideline. Feeding was initiated sooner, 2.4 days (post-guideline) vs. 6.4 days (pre-guideline). Time to reach full feeding goal was reduced from 18.6 days to 14.3 days. Compliance to the feeding guideline was approximately 80%. NEC rates declined from 5.9% in 2012 to 3.8% in 2014. A cost analysis showed an approximate $1.33 million in potential savings via less TPN days, CLABSI, and NEC cases.

Conclusion: Implementing an evidence-based feeding protocol encouraged practice consistency among clinicians. The challenges in achieving the goals were overcome by team vigilance and continued communication between dietitians, physicians, and nurses through re-education and reminders during bedside rounds and department meetings. Barriers to earlier initiation of feedings, as well as indications requiring NPO status, should be clearly defined. Continued updates to feeding guidelines to reflect current evidence should be an ongoing priority.
INTERDISCIPLINARY FAMILY CONFERENCES TO IMPROVE PATIENT EXPERIENCE IN THE NICU

Ching Ching Tay, MS, CNS, RNC-NIC; Arwin Valencia, MD; Jennifer Trujillo, LCSW; Yesenia Fernandez, MSW; Kristina Lok, MSW

**Objective:** Improve patient experience through interdisciplinary family conferences (IFC) for families of premature infants and infants with congenital anomalies.

**Background:** Parents and family members act as surrogates for sick neonates for medical decision-making. Thus, clear communication between parents and clinicians is vital in the neonatal intensive care unit (NICU) and can have profound effects on the family’s long-term mental health. One way to improve the family’s experience and to encourage their involvement is by establishing a focused family conference.

**Method:** NICU social workers plan and coordinate IFC for the families of all infants who were less than 32 weeks of gestation and/or with congenital birth anomalies within 14 days of admission into the NICU. Data from September 2014 through December 2015 were collected and analyzed to determine the challenges in accomplishing this goal. Patient satisfaction (AVATAR) score was tracked as an outcome measure. Process measures included percentage of family conferences that occurred within 14 days of admission.

**Results:** Our AVATAR score showed steady improvement following the addition of IFC to bedside rounding. IFC within 2 weeks of NICU admission occurred near 100% of the time when parents agreed to participate. However, each family had unique challenges. Some families declined, as they felt that they were not mentally prepared to hear a delineated update of their infant within 14 days, while some appeared to be well informed on the status and prognosis of their child through bedside rounding or by physician phone calls.

**Conclusion:** IFC is an integral part of a family-centered care approach and helps to foster partnering with families in developing plan of care. They also provide opportunities for families to meet the care team away from the bedside, away from the many distractions. This allows for improved communication.
THE TEAM APPROACH TO REDUCING CHRONIC LUNG DISEASE: A CHAMPION’S STORY

Dominque Adoumie, RN; Maria Abrantes, MD; Arwin Valencia, MD; Antoine Soliman, MD; Donna Flores, BSN, RN; Ronaldo Cabosura, RRT-NPS; Jason Jenkins, BSRC, RRT-NPS; Ching Ching Tay, MS, CNS, RNC-NIC

Objective: Improve respiratory outcomes of premature infants less than 1500g through non-invasive respiratory support.

Background: Non-invasive respiratory support such as nasal continuous positive airway pressure (CPAP) is an effective method for reducing need for mechanical ventilation and decreasing the outcome of chronic lung disease (CLD) in premature infants. In 2013, the rate of CLD in our neonatal intensive care unit (NICU) was approximately 2-times to some of the high performing NICUs in the country. However, implementing a new management strategy in a large tertiary center can be challenging.

Method: A team was sent to Columbia University Medical Center in 2014, to learn their technique of nasal CPAP, also known as Bubble CPAP (BCPAP). Next, a core group of staff nurses and respiratory therapists were recruited as BCPAP champions. Policies and checklists were developed. Several metrics such as CLD rate, duration of mechanical ventilation, CPAP days, and device related skin injury were collected to measure outcomes.

Results: In 2015, a total of 117 premature infants were placed on bubble CPAP. There was a 5-fold increase in total CPAP days and duration of prolonged mechanical ventilation (greater than 11 days) were decreased by 20%. CLD rate decreased from 33.8% (2013) to 26% (2015) despite higher volume of extreme premature infants in 2015. Device related skin injury ranged from 7% to 35% with this modality.

Conclusion: Employment of a team of champions can be an effective method when introducing a practice change in a large unit. Continuous engagement of the champions through regularly scheduled educational meeting and skills workshop also helps to sustain change momentum in the unit. This group is currently focused on initiating Bubble CPAP in the delivery room, reducing nasal breakdowns, and furthering the positive change in NICU culture.
STANDARDIZATION OF THE METHODS USED FOR UMBILICAL ARTERIAL LINE PLACEMENT AMONG VLBW INFANTS

Grace O'Neil, BSN, RN; Elise Batinga, BSN, RN; Arwin Valencia, MD; Ching Ching Tay, MS, CNS, RNC-NIC

Objective: To decrease risk of catheter-tip malpositioning by determining the most efficacious method of estimating insertion depth of umbilical arterial catheter (UAC).

Background: There are numerous methods to determine the depth of UAC insertion. However, the accuracy of these methods is unclear leading to risk of catheter malpositioning, catheter-related complications and unnecessary exposure to radiation.

Method: For baseline data, a 6-month retrospective chart review was performed on very-low-birth-weight (VLBW) infants who had a UAC. All 12 attending neonatologists were surveyed on their preferred method of estimating insertion depth. A literature review was conducted to determine best practice evidence. Based on the survey result and literature review, it was determined that the Shukla (weight X 3 + 9) method yields the most accurate placement. Subsequently, this method was put to test using the PDSA (plan-do-study-act) cycle, and prospective data was collected to determine efficacy of the Shukla method. Data was analyzed using Fisher’s exact test with Yates correction.

Results: 22 infants had a UAC during the retrospective data period, at which time the attending neonatologists were using at least 4 different insertion depth formulas. Following adoption of the Shukla method, 69 infants were studied. Accuracy for initial placement improved from 27% to 52% with the Shukla method. 48% required at least a one-time catheter depth adjustment versus 73% pre-standardization (p=0.051). The estimated cost savings was $4,654.00 or 26% reduction in cost for radiography as a result of this improvement.

Conclusion: Standardizing the calculation method for the depth of umbilical artery catheter placement improved the accuracy of placement. A simple intervention, such as avoiding multiple formulas and choosing one universally accepted formula, has shown improvement nearing significance in accuracy, and demonstrable cost effectiveness.
ASSESSING EVIDENCE-BASED PRACTICE IN A COMMUNITY HOSPITAL SETTING: A BASELINE STUDY

Carrie DuPee, RN, DNP

**Purpose:** The purpose of this project is to assess health care professionals' beliefs and frequency of implementation of evidence-based practice (EBP) and perception of organizational readiness for EBP in a community hospital setting.

**Background:** Evidence-based practice is a significant determinant for patient safety and quality outcomes. Multiple barriers for EBP implementation have been identified in the literature, therefore identifying opportunities to overcome those barriers is necessary. Conducting a baseline assessment of this organization's readiness for integrating EBP into their culture is an initial step for addressing those barriers and facilitators of EBP.

**Methods:** A descriptive study was conducted using three surveys: The Evidence-based Practice Beliefs Scale, the Evidence-based Practice Implementation Scale, and the Organizational Culture and Readiness Scale for System-wide Integration of Evidence-based Practice. Data was collected in July 2015, with 672 surveys completed.

**Results:** Statistically significant differences were noted with respondents who indicated that they had national certification versus those who did not related to strength of beliefs ($T = 59.499$ vs $57.29$, $T(641) = 3.20$, $p < 0.002$); frequency of EBP implementation ($T = 36.650$ vs $31.235$, $T(588) = 4.32$, $p < 0.0001$); and overall EBP culture readiness ($T = 2.9099$ vs. $2.6336$, $T(664) = 3.00$, $p < 0.01$). Statistically significant differences were also noted with years of practice, with those practicing > 20 years versus those practicing < 5 years showing decreased strength of beliefs in EBP ($T = 56.600$ vs. $63.114$, $F(3,643) = 13.80$, $p < 0.001$), and overall EBP culture readiness ($F = 2.6222$ vs. $3.2676$, $F(3,666) = 6.06$, $p < 0.001$).

**Conclusion:** This baseline assessment will provide direction for planning EBP initiatives to facilitate strategies for creating and sustaining a culture for EBP in this community hospital that will lead to quality patient outcomes.
BARRIERS AND FACILITATORS TO NURSE ENGAGEMENT

Raissa Camanazo, BSN, RN, PHN

**Background:** Nurses are at risk for experiencing increased levels of burnout and decreased retention rates, which are linked to low engagement levels or an “engagement gap” (Rivera, Fitzpatrick, & Boyle, 2011). This gap affects retention rates, patient care outcomes, and patient safety (Leiter & Maslach, 2004 as cited in Laschinger, Wong, & Grau, 2013). The concept of nurse engagement has shown to impact positively nurses’ level of burnout and turnover (Collini, Guidroz, & Perez, 2013). However, research focused on engagement lacks definitive ways to apply this concept to nursing practice.

**Purpose/Aim:** This descriptive, quantitative study aimed to answer the following questions: what is the nurses’ current level of nurse engagement in the facility of study, and what are the facilitators and barriers to nurse engagement that nurses cite most often in the facility of study?

**Methodology:** Bedside nurses at an acute care hospital completed anonymous, paper surveys on nurse engagement over four weeks. The survey consisted of questions that were both researcher-designed and culled from the 2006 Advisory Board Nurse Engagement Survey (Rivera et al., 2011). Likert scale responses were analyzed using descriptive statistics and Spearman correlations. Open-ended responses were coded and organized into themes.

**Results:** Nurses (n=115) experienced three different levels of engagement. The three levels of engagement were as follows: low (0-2): 1.7% of nurses, medium (3-4): 40.9-1.7=39.2% of nurses, and high (5-6): 59.1% of nurses. No significance was noted between demographics and engagement level. Significant positive correlations existed between engagement level and all the drivers to engagement—the highest being “autonomy and input”, $r=0.736$, $p=0.001$.

**Conclusion/Implications:** Nurses in this study experienced high levels of engagement. Both extrinsic and intrinsic factors were found to be significantly correlated with the nurses’ levels of engagement. Nurse leaders should focus on developing interventions that center on both extrinsic and intrinsic factors.

**References**


Purpose Statement: The purpose of this presentation is to demonstrate how a unit-level shared governance committee can positively impact pediatric ambulatory nursing and promote the presence of ambulatory care in hospital wide shared governance.

Background: In preparation for Magnet designation and in support of shared governance, the existing Outpatient Specialty Center (OPSC) Nursing Task Force was redesigned in 2013. The redesign embraces an environment in which staff nurses are empowered to become leaders and significantly impact the care provided in the outpatient specialty centers. Through professional growth and development, innovative practices, collaboration, commitment, accountability and quality outcomes, OPSC Nursing Committee (NC) is transforming ambulatory nursing one step at a time.

Abstract: Our hospital Outpatient Pediatric Specialty Centers consists of approximately 60 nurses and 26 specialty centers in 8 separate locations. Our department developed a unit-level shared governance committee to address the unique challenges and needs of ambulatory nursing. Our Outpatient Pediatric Specialty Centers’ Nursing Committee (OPSCNC) is responsible for promoting cohesive leadership, encouraging collaboration, and developing innovative policies, procedures and activities that advance the delivery of nursing healthcare services. Our OPSCNC is comprised of 4 subcommittees, Patient Care and Education, Evidence Base Practice, Transition, and Professional Development. Each subcommittee chair reports monthly to the OPSCNC which in turn reports to a hospital wide shared governance council.

Aim: The overall goal of the OPSCNC is to coordinate nursing practice activities which support and ensure the maintenance of a high level of clinical practice, leadership development, quality and cost efficient nursing care for our outpatient population.

Results: Since the inception of the OPSCNC in 2013, we have seen an increase of nursing certification by 13% with a total of 40% of our RN staff being certified. Additionally, professional clinical advancement of RN II nurses has increased by 17%. We have also formed a journal club, educated nurses on motivational interviewing techniques to enhance patient outcomes, created a transition of care program and have had a number of patient education handouts written by staff and branded for hospital use. We have nurse representation on every hospital wide council/committees.

Outcome/Results: Nurses have been involved in creating policies and procedures directly impacting ambulatory care practice. Our presentation will demonstrate how developing and implementing a unit-level shared governance committee will increase nursing engagement and commitment while at the same time improving the delivery of nursing care to pediatric patients and families in an ambulatory care setting.
LATINA MOTHER’S STORIES: NARRATIVES OF PARENTING A CHILD WITH CYSTIC FIBROSIS, HEALTH BELIEFS, AND HEALTH CARE EXPERIENCES RELATED TO CYSTIC FIBROSIS

Linda Tirabassi, PhD, RN, CPNP

**Background:** The Hispanic population is the fastest growing minority in the United States and is also a minority in the cystic fibrosis (CF) community. The genetic carrier frequency of CF is reported to be less in the Hispanic population than that of the Euro-American population. Concomitant with an increasing Hispanic U.S. population, combined with CF newborn screening programs, more Hispanic individuals with a diagnosis of CF might be anticipated.

**Aim:** This study explored stories of Latina mothers’ perspectives of parenting their child with CF, health beliefs, and health care experiences. The study interviewed 10 mothers, half English speaking; an interpreter was used for the Spanish speaking mothers.

**Method:** Narrative Inquiry methodology was employed. Narrative structural and thematic analyses were applied through a critical and feminist lens.

**Results:** The major themes that emerged were mothering, growing and growth, mother talk, and connected, informed by Ruddick’s (1995) framework on maternal thinking. Additional major themes were life disrupted and being here. Findings were consistent with existing literature of the dominant Euro-American culture of being a mother of a child with CF. Health beliefs specific to CF care were aligned with prescribed medical treatments, however areas of extended family influence of health beliefs surfaced. Language emerged as a primary barrier for Spanish-speaking mothers. Mothers acknowledged an existing lack of awareness of CF in the Hispanic community and as underrepresented within the larger CF community. They expressed a desire to see a shift of the stereotyped Caucasian images of CF to represent Hispanic people to promote greater awareness in the Hispanic communities and with health care providers.

**Outcome/Results:** Nurses have opportunities to gain culturally sensitive insight to deliver patient and family centered care. Applying research findings that illuminate reported care differences in the health care setting may increase nurses’ ability to individualize care of non-dominant Euro-American children and families.
UNDER-RECOGNIZED PROBLEM IN CYSTIC FIBROSIS: URINARY INCONTINENCE

Anna Sladkey; Terry Chin; Eliezer Nussbaum

Background and Objectives: Urinary incontinence is not commonly recognized as a problem in females with cystic fibrosis (CF). There are multifactorial causes such as diabetes, constipation, and excessive forces on the pelvic floor from coughing that appears to place CF females at a higher risk for stress urinary incontinence. Therefore, its prevalence appears to be greater than in the normal population varying from 19% to 49% in CF girls. Nevertheless, further studies are needed to exam the outcomes of intervention for children and adolescents who suffer from urinary incontinence.

Methods: All females between the ages of 9 and 21 years old were screened by a physical therapist during their routine CF clinic visit over a span of 5 months. Patients were asked about their symptoms and educated about stress urinary incontinence including pelvic floor exercises. Intervention was focused on training patients to use the knack technique. Subjects were seen at their next clinic visit for follow up.

Results: A total of 25 females were screened for stress urinary incontinence (UI) and 12 (48%) complained of having symptoms. All 12 complained of symptoms with coughing, 1 female complained of having symptoms with sneezing along with coughing, 1 female complained of symptoms with jumping and tumbling along with coughing. Nine complained of having leakage every day, three had symptoms only during acute pulmonary exacerbations. Ten described their leakage as a few drops to two tablespoons, and two reported having complete loss of bladder control. In terms of the genotype, eight (67%) subjects carry at least one delta F508 gene with four being homozygous. Three of the twelve also had developed CF related diabetes. None have a history of pregnancy. There did not appear to be a correlation with lung function with their FEV1 ranging from 46% to 103%. However, six (50%) had Pseudomonas aeruginosa positive cultures from their sputum. The average BMI of the subjects were 21.61 kg/m2, ranging from 16.54-28.74. Only 1 subject was considered to be overweight (28.74 kg/m2). Following discussion and demonstration of the knack technique, 58% of the patients reported an improvement of their urinary incontinence symptoms. However, 17% also admitted that they were non adherent with using technique. (Three have not returned to the clinic to assess their response to the technique.) When compared to the control group of 13 without UI, there was no difference in age, lung function, and frequency of hospitalizations (see Table).

Conclusion: About half of the subjects screened suffered from stress UI and 75% of the subjects identified having stress urinary incontinence experienced symptoms every day. There does not seem to be a correlation between prevalence of urinary incontinence and FEV1%, CF related diabetes, BMI, or hospitalizations, genotype, and the presence of significant microbial pathogens. The knack technique is an appropriate and effective intervention for the treatment of stress urinary incontinence with females with Cystic Fibrosis as young as 11 years old.

Clinical Implications: Further studies are needed to determine the etiology of UI in the CF population. It does not appear related to the severity of lung disease nor with the BMI. Frequent screening and education for patients who suffer from urinary incontinence can reduce symptoms and improve quality of life. Pelvic floor exercise and techniques should be incorporated into routine CF care.

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>FEV1 (% predicted)</th>
<th>BMI (kg/m2)</th>
<th>Hospitalizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>mean</td>
<td>sd</td>
<td>mean</td>
<td>sd</td>
</tr>
<tr>
<td>UI</td>
<td>14.8</td>
<td>2.8</td>
<td>78.7%</td>
</tr>
<tr>
<td>Control</td>
<td>15.1</td>
<td>2.7</td>
<td>84.1%</td>
</tr>
</tbody>
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Background: Research suggests that a patient suffering from a cardiac and/or respiratory arrest usually exhibits physiological deviations, such as changes in vital signs and/or mental status, at least eight hours prior to the need for more intensive care (Stenhouse et al., 2000). Numerous early warning score (EWS) tools are available for use in acute care settings to alert nurses to the need for early intervention to prevent continuing decline and mortality. The National Early Warning Scores (NEWS) is a tool used to predict clinical deterioration, based on physiologic measurements. A specific score is given to each physiological measurement and aggregated scores from six parameters and the use of oxygen are used to create a composite score to predict the magnitude of decline.

Aim/Method: A prospective quantitative study was conducted in six medical/surgical units in a level I trauma center, over a thirty-day period of time (November 10, 2015 – December 9, 2015), in order to validate the effectiveness of NEWS in predicting clinical deterioration.

Results: Three thousand one hundred and fifty four patient recordings revealed that 91 patients scored NEWS ≥5, or a score of 3 in a single parameter and received interventions to prevent further clinical deterioration. Of the 91 NEWS positive patients, 22 were transferred to a higher level of care, whereas 63 patients stayed on the medical/surgical unit. Their NEWS returned to acceptable levels after therapies.

Implications: Project findings indicate that NEWS supports clinical decision-making processes as it allows for a single measure of an extreme physiologic value or an aggregate score to activate interventions to prevent clinical deterioration.
VISITATION WITHOUT LIMITATION: FACETIME IN THE PACU

Emily Azuaje, RN, CCRN; Lucile Dinh, MSN, MPH, CNS, RN, CPAN; Amor Eluna, BSN, RN, CCRN

Purpose of the Project: The purpose of this project was to provide another means of communication for family through use of Facetime on an IPad which allows for convenient access to the patient, thereby decreasing anxiety and increasing patient-family satisfaction.

Background Information: The surgical waiting experience can be an anxious time for family/friends of patients undergoing surgery. Although there are various methods to update and comfort those waiting, bedside visitation in the PACU is limited due to patient flow, interruption of workflow, risk of infection, and disruption confidentiality and privacy. In response to the limitations of bedside visitation, the use of innovative technology such as Facetime was considered. Currently there are limited studies on televisitation in the PACU.

Methods: Initial steps required approval from Corporate Compliance and collaboration with the Information Systems Department, Volunteers, and PACU staff. Using LEAN methodology, a standard work for using Facetime was created. Training and implementation was done with Volunteers and PACU staff and initiated in March 2015. Initiation of Facetime included the primary RN setting up the portable IPad stand, preparing patient for use, and communicating with Volunteers in facilitating family participation in a private surgical waiting room with corresponding Facetime network connection. Surveys were distributed per family after using Facetime.

Outcomes: Based on survey results, it was found that 65% of families reported anxiety. Families agreed/strongly agreed in an 85% majority that their anxiety decreased and subsequently resulted in a 75% satisfaction with communication and updates received. Although these survey scores did not solely focus on Facetime, 100% of participants said they would use Facetime again.

Conclusions: Facetime is an alternate option for family when bedside visitation cannot be offered in the PACU. Use of Facetime can transcend to alternate, remote off site areas if family is unable to be present in the hospital during patients’ surgical experience. Future implications can include use of Facetime in telemedicine to report findings to physicians.
IMPROVING HIV TREATMENT PROGRAM ADHERENCE IN AN ETHNICALLY DIVERSE URBAN CLINIC

Nadine Farr Brown, DNP, MSN, MPH, RN; Margaret Brady, PhD, RN, CPNP-PC; David Kudrow, EdD

Purpose and Objectives: The purpose of this project was to understand the roles and perspectives of healthcare providers in facilitating and improving treatment adherence of high risk HIV positive clients in an ethnically diverse urban HIV treatment clinic. The objectives were to identify barriers and facilitators to adherence, review best practices at each treatment clinic, and provide recommendations for improving adherence.

Background and Significance: The treatment and containment of HIV/AIDS remain a major Public Health challenge and a burden for society globally. Non-adherence to HIV treatment regimen has been a primary contributor to the debilitating effect experienced by individuals infected with the disease. Antiretroviral treatment (ART) is effective in increasing the life expectancy of individuals beyond the known natural course of the disease. Clients who maintain 95% or better adherence rate to their treatment regimen are more likely to have undetectable viral load.

Procedure: Semi-structured interviews were used to gather information regarding factors that contributed to non-adherence to HIV treatment regimens, and strategies employed by healthcare providers to increase adherence. Social cognitive theory and the logic model were the conceptual frameworks used to guide the project. Participants included a convenient sample of 12 ethnically diverse care providers; age ranged 28 to 62 years, from three California HIV treatment clinics.

Project Outcomes: Themes identified as contributing to poor treatment adherence were mental health status, substance abuse, homelessness, and stigma related to a positive HIV status. Healthcare system barriers included, lack of cultural diversity among providers, bureaucratic issues relating to insurance coverage, and limited access to specialized services. Love and positive reinforcement were the greatest influences of adherence.

Conclusion: Future projects should investigate how the dynamics of the healthcare system affect HIV treatment adherence and the effectiveness of assessment tools used to identify clients at high risk for treatment non-adherence.
PERCEPTIONS OF LATINO CAREGIVERS OF STROKE SURVIVORS

Cristal Martinez;
Stephanie Vaughn, PhD, RN, CRRN, FAHA

**Purpose:** The purpose of this study was to examine perceived needs and resources of family caregivers of Latino stroke survivors.

**Background:** Latinos have a different prevalence of risk factors, which increases the risk for strokes to occur at a younger age compared to non-Latino whites. Stroke care in the Latino community is usually provided by family members in the home setting versus seeking outside help (*familism*). Caregiver information is procured in various ways, more often from “word of mouth” from family and friends versus healthcare providers.

**Methodology:** Ethnography was used to examine the perspectives/practices of Latino stroke caregivers. Data were collected via interviews of ten family caregivers in English and Spanish after informed consents were signed. The ten caregiver participants’ average age was 38 years. This group was comprised of spouses, daughters, a sister, and one eldest son. Ethnicity of all was Mexican or Mexican/American.

**Data Findings:** The average hours of stroke care provided by caregivers was reported as 10-12 per day. The first theme was, *caring for family*. All caregivers received some information; however few sought outside resources related to rehabilitation therapy, transportation, or financial aid. Another theme was *what’s next?* in which caregivers often did not know where to access resources beyond the MD office or clinic. A prominent theme was the use of *religion/ spirituality* for caregivers and stroke survivors. The last theme identified was “Spanish interpretation/cultural competence”: the need for healthcare professionals to provide healthcare information in native language and to acknowledge the importance of cultural holistic practices of the survivors and caregivers.

**Implications:** Stroke family caregivers need providers to look “within culture” and be sensitive to the needs of the Latino family. To further elucidate the needs of the Latino stroke survivors and caregivers, other studies that highlight strategies to reduce disparities in care and promote culturally competent care of this population are warranted.
REDUCING PRESSURE ULCERS BY 40%: INTRODUCING A SKIN BUNDLE

Michelle Sterling, RN, MSN, DNP, ACNS-BC; Joy Goebel, PhD, RN; Jarline Ketola, PhD, RN

Background: Hospital-Acquired Pressure Ulcers (HAPUs) are a major health care issue that leads to patient suffering and exorbitant health care expense. The Centers for Medicare and Medicaid Services (CMS) identifies HAPUs as Never Events: an event that should not incur while in the hospital and longer provides reimbursement for HAPUs. In 2013 there were 26 HAPUs on the spinal cord injury (SCI) unit at the 219 bed urban hospital where the author practices.

Aim: To decrease HAPUs by 40% over 12 months on the Spinal Cord Injury Unit by introducing a skin bundle.

Methods: The QI skin bundle involved providing nursing education, new skin care products, revised Braden Risk Assessment Scale, and a root cause analysis HAPU tool. HAPU data was abstracted from the electronic health record and verified by the wound nurse. Appropriate measures of central tendency were calculated to describe the sample and report the results.

Results: HAPUs decreased by 65.4% over the period of the project.

Conclusions: HAPUs remain a significant burden, especially for SCI patients. By using a multimodal approach (a skin care bundle), nurses have the opportunity to mitigate this Never Event. Strategies to sustain the QI project include continued monitoring by staff, feedback from administration, and peer review to ensure accurate documentation.
NURSES’ PERCEPTIONS OF EMPOWERMENT AND THE PROFESSIONAL PRACTICE ENVIRONMENT

Martha Zepeda, DNP, RN-BC

Background: Managers in the health care industry have made employee engagement a hot issue because of growing evidence that engagement has a positive correlation with individual, group, and organizational performance in areas such as productivity, retention, turnover, customer satisfaction and loyalty, and quality patient care (Park & Park, 2008). Furthermore, nursing, empowerment is frequently used to characterize nurses who successfully act within their organizations to deliver effective patient care. Empowerment emerges from interactions among individual, organizational, and sociocultural factors (Patrick et al, 2008). Empowerment has a direct impact on nursing work effectiveness, including job satisfaction and work productivity, and is a mediating factor in job characteristics and leadership of managers (Wong and Laschinger, 2013).

Our original study using the Conditions of Work Effectiveness Questionnaire-II (CWEQ-II), was conducted to gain baseline data to measure the perception of structural empowerment by nurses and examine the relationship between staff registered nurse participation in organizational structures and perceived structural empowerment.

Aim: The purpose of this secondary data analysis was to examine survey data from the CWEQ-II and conduct a comparative analysis, to the hospital RN satisfaction survey data collected in 2014 and 2015. The purpose of the comparison was to examine for congruence and any significant associations between the responses on the CWEQ-II and the annual hospital RN satisfaction survey responses. The RN satisfaction survey is a new hospital survey that was begun in 2014 related to the work environment and RN satisfaction. Specific survey questions on the CWEQ-II were analytically compared to specific RN satisfaction hospital survey questions that were of a similar wording or construct. The purpose of the comparison was to see if the hospital RN satisfaction survey questions would be a good representation of the empowerment constructs within the CWEQ-II. If this were validated statistically by a lack of difference between the survey responses, the RN satisfaction survey would continue to be used annually as a reflection of empowerment constructs in the work environment.

Method: Three sets of survey data from three sequential years were compared. Chi-square analysis was performed on data from the three survey periods to determine significant differences between the CWEQII and RN satisfaction 2014, CWEQII and RN satisfaction 2015, RN satisfaction 2014 to RN satisfaction 2015, and all three surveys compared.

Results: There were no significant differences between the CWEQII score and the RN satisfaction score for all comparisons except for the CWEQII question related to informal power (being sought out by peers for help with problems) and the hospital RN satisfaction survey question (there is a strong commitment to collaboration between RNs within my workplace). All other comparisons showed no significant differences between the question responses (p<.05). When each question from all three survey groups was compared, there were no significant differences found between the survey responses (p<.05). The Kruskal-Wallis procedure was used to test that the response distributions for the three groups of surveys were the same across the categories. There were no significant differences found between the three groups (p<.05).

Conclusion: The results of the data analysis show no significant differences between all three groups of survey responses. The one difference between groups found in the data analysis was in a comparison of the CWEQII score and the hospital survey RN satisfaction score for the CWEQII question related to informal power (being sought out by peers for help with problems) and the hospital RN satisfaction survey question (there is a strong commitment to collaboration between RNs within my workplace). However when this survey question was compared between all three survey groups, there was no difference (p<.002). Based on these results, the CWEQII survey question responses and the hospital RN satisfaction survey responses seem to represent similar scoring by the nurses between the two similar question constructs between the two surveys. This lends validation to use of the hospital RN satisfaction survey as a similar measure of empowerment constructs contained in the CWEQII.
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